Test Report
Rate of Spread of Tack Coat

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Location	At Site
Material	Bitumen
Sample No	7
Date	11-Apr-2018

Sl. No.	Determination	Unit	Test No 1 Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.659	1.652
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.016	0.018	0.011
6	Rate of spread (d/a)	kg / m^2	0.4	0.45	0.275
7	Average	kg / m^2	0.375		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.375 kg / m2

Note:

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Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Tack Coat

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Location	At Site
Material	Bitumen
Sample No	8
Date	11-Apr-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.658	1.658	1.649
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.017	0.017	0.008
6	Rate of spread (d/a)	kg / m^2	0.425	0.425	0.200
7	Average	kg / m^2	0.350		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.350 kg / m2

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Tack Coat

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Location	At Site
Material	Bitumen
Sample No	9
Date	11-Apr-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.658	1.66	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.017	0.019	0.01
6	Rate of spread (d/a)	kg / m^2	0.425	0.475	0.250
7	Average	kg / m^2	0.383		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.383 kg / m2

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Impact Value

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse Aggregate
Sample No	1
Date	3-Apr-2018

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1309	1311
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	349	351
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	83	82
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	266	269
6	Aggregate Impact Value (w4 / w3)x100	%	23.78	23.36
7	Specified Limit	%	27	

Results: Average Aggregate Impact Value: **23.57** %

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Impact Value

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse Aggregate
Sample No	2
Date	7-Apr-2018

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1314	1316
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	354	356
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	81	80
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	273	276
6	Aggregate Impact Value (w4 / w3)x100	%	22.88	22.47
7	Specified Limit	%	27	

Results: Average Aggregate Impact Value: **22.68** %

Note:

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Asst. Executive Enginee
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Particle Shape

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	3-Apr-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	0	19.5	0	58.5	0
31.5	25	0	16.95	0	-	0
25	20	1554	13.5	234	40.5	252
20	16	1445	10.8	124	32.4	151
16	12.5	956	8.55	151	25.6	158
12.5	10	471	6.75	73	20.2	79
10	6.3	232	4.89	54	14.7	61
	SW	4658	SWf	636	SWe	701

Flakiness Index 13.65 %

Elongation Index 15.05 %

Combined Flakiness and Elongation Indices : 28.70 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for DBM is 35%.

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Asst. Executive Engineer
Project Division
Yelahanka Zone

Test Report
Aggregate Particle Shape

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	2
Date	7-Apr-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	0	19.5	0	58.5	0
31.5	25	0	16.95	0	-	0
25	20	1564	13.5	244	40.5	262
20	16	1430	10.8	109	32.4	136
16	12.5	966	8.55	161	25.6	168
12.5	10	481	6.75	83	20.2	89
10	6.3	242	4.89	64	14.7	71
	SW	4683	SWf	661	SWe	726

Flakiness Index 14.11 %

Elongation Index 15.50 %

Combined Flakiness and Elongation Indices : 29.62 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for DBMis 35%.

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Stripping Value

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 6241 - 1971 & Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Hot Mix Plant
Material	Coarse Aggregates / Bitumen
Sample No	1
Date	2-Apr-2018
Type of Aggregate	Coarse Aggregate
Type of Binder	60 / 70 Grade
Percentage of Binder Used	5% by weight
Total weight of Aggregate	200 gms
Total weight of Binder	10 gms
Temperature of water bath	40^0C

Observation Number	Stripping Percentage	Average Percentage	Average Retained Coating (%)
1	3.6	3.63	96.37
2	3.5		
3	3.8		

Comments: Minimum allowable Aggregate Stripping Value for Dense Bituminous Macadam is 95%

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report

Specific Gravity and Water Absorption

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS: 2386 (Part - 111) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	2-Apr-2018

Sl. No.	Particulars	Computations	Test Numbers		Mean
			Test 1	Test 2	
1	Weight of Empty Basket Immersed in Water	W_1 g	761	763	
2	water	W_2g	2024	2022	
3	Weight of Saturated Aggregate in water	W_sg = W_2- W_1	1263	1259	
4	Weight of saturated surface dry aggregate in Air	W_3 g	2059	2047	
5	Aggregate	W_3- W_s	796	788	
6	Weight of Oven dried Aggregate	W_4g	2020	2018	
7	Specific Gravity	W_4/(W_3- W_s)	2.54	2.56	2.55
8	Apparent Specific Gravity	W_4/(W_4- W_s)	2.67	2.66	2.66
9	Water Absorption	(W_4- W_3)*100/ W_4	1.93	1.44	1.69

Comments: Maximum allowable Aggregate Water Absorption value for Dense bituminous Macadam is 2.0%.

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	PACKAGE 5(1) Improvements of Road Adjecent to Yelahanka Lake From Kenchanahalli to Chowdeshwari temple in Ward No.2. 2)Improvements and Asplating to New post office Main Road and cross roads in Ward no 01. 3)Improvements and Asplating to suggappa layout cross roads in ward No 01. 4)Improvements and Asplating to Shanimahathma swamy temple road and surabi layout 2nd Main and cross Roads in ward No 01. 5)Asplating to Balance Roads in A & B Sector of Yelahanka New Town in Ward No 04)
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-5/1/2017-2018
Mix Type	Dense Graded Bituminous Macadam
Contractor	Sri. R.LOKESH
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	3-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	37.5	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Dense graded biyuminous macadam
2	26.5	174	4.35	4.35	95.65	90-100	
3	19	872	21.8	26.15	73.85	71-95	
4	13.2	732	18.3	44.45	55.55	56-80	
5	4.75	676	16.9	61.35	38.65	38-54	
6	2.36	371	9.275	70.625	29.375	28-42	
7	0.3	761	19.025	89.65	10.35	(7-21)	
8	0.075	276	6.9	96.55	3.45	(2-8)	

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